

STATEMENT OF BASIS

as required by LAC 33:IX.3109 for LPDES facilities where a fact sheet is not required under LAC 33:IX.3311, for draft Louisiana Pollutant Discharge Elimination System Permit No. LA0123331; AI 150747; PER20070001 to discharge to waters of the State of Louisiana as per LAC 33:IX.2311.

The permitting authority for the Louisiana Pollutant Discharge Elimination System (LPDES) is:

Louisiana Department of Environmental Quality
Office of Environmental Services
P. O. Box 4313
Baton Rouge, Louisiana 70821-4313

- I. **THE APPLICANT IS:** Tangipahoa Sewerage District No.1
Coves of Highland Subdivision
15481 Club Deluxe Road
Hammond, LA 70403
- II. **PREPARED BY:** Angela Marse
- DATE PREPARED:** January 15, 2008
- III. **PERMIT ACTION:** LPDES permit LA0123331, AI 150747; PER20070001
- LPDES application received: October 5, 2007
- LPDES permit issued: new facility, none issued

IV. FACILITY INFORMATION:

- A. The application is for the discharge of treated sanitary wastewater from a publicly owned treatment works serving the Coves of Highland Subdivision.
- B. The permit application does not indicate the receipt of industrial wastewater.
- C. The facility is located on La. Hwy. 445, 2.5 miles north of U.S. Hwy. 190 in Robert, Tangipahoa Parish.
- D. The treatment facility consists of an aerated lagoon followed by an artificial wetland. Disinfection is by chlorination.

E. Outfall 001

Discharge Location:	Latitude	30° 32' 13" North
	Longitude	90° 20' 42" West

Description: treated sanitary wastewater

Design Capacity:	0.1 MGD	Phase I
	0.4 MGD	Phase II-IV

Type of Flow Measurement which the facility is currently using: Totalizing Meter

V. RECEIVING WATERS:

The discharge is into a highway ditch, thence into Pole Bridge Branch, thence into Washley Creek, thence into the Tangipahoa River in segment 040701 of the Lake Ponchartrain Basin. This segment is listed on the 303(d) list of impaired waterbodies.

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The designated uses and degree of support for Segment 040701 of the Lake Ponchartrain Basin are as indicated in the table below^{1/}:

Overall Degree of Support for Segment 040701	Degree of Support of Each Use						
	Primary Contact Recreation	Secondary Contact Recreation	Propagation of Fish & Wildlife	Outstanding Natural Resource Water	Drinking Water Supply	Shell fish Propagation	Agriculture
Partial	Not Supported	Full	Not Supported	Full	N/A	N/A	N/A

^{1/}The designated uses and degree of support for Segment 040701 of the Lake Ponchartrain Basin are as indicated in LAC 33:IX.1123.C.3, Table (3) and the 2004 Water Quality Management Plan, Water Quality Inventory Integrated Report, Appendix A, respectively.

Section 303 (d) of the Clean Water Act, as amended by the Water Quality Act of 1987 and EPA's regulations at 40 CFR 130, require that each state identify those waters within its boundaries not meeting water quality standards. The Clean Water Act further requires states to implement plans to address impairments. LDEQ is developing Total Maximum Daily Loadings Studies (TMDLs) to address impaired waterbodies. Segment 040701 of the Lake Pontchartrain Basin is on the 2004 Integrated 303(d) List of Impaired Waterbodies. The suspected causes of impairment are mercury and pathogen indicators. To date no TMDLs have been completed for this waterbody.

Suspected causes of concern are addressed in a manner consistent with the Department's permitting guidance for implementing Louisiana's surface water quality standards as follows:

Pathogen Indicators

Monitoring for fecal coliform is the best indicator for the potential presence of pathogenic organisms in wastewater. To protect against potential receiving water impairments due to pathogens, fecal coliform limits have been established in the permit. Permit limits are reflective of water quality standards for primary contact recreation, a designated use of the receiving stream.

Mercury

The source of mercury has been identified as atmospheric deposition. Since the discharge is not directly into the mercury impaired waterbody and the facility is planned to service only residential users, no limit or mercury prevention program plan has been included in the draft permit. Should the TMDL for mercury determine a mercury effluent limitation is necessary, a reopener clause has been included in the draft permit.

VI. ENDANGERED SPECIES:

The receiving waterbody, Subsegment 040701 of the Lake Ponchartrain Basin, is listed in Section II.2 of the Implementation Strategy as requiring consultation with the U.S. Fish & Wildlife Service (FWS) as habitat for the *Gulf sturgeon* which is listed as a threatened/endangered species. This strategy was submitted with a letter dated October 24, 2007 from Boggs (FWS) to Brown (LDEQ). A copy of the draft permit has been submitted to the FWS for review.

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VII. HISTORIC SITES:

The discharge will be from a new facility. LDEQ has consulted with the State Historic Preservation Officer (SHPO) in a letter dated October 8, 2007 to determine whether construction-related activities could potentially affect sites or properties on or eligible for listing on the National Register of Historic Places. SHPO's response, dated October 31, 2007 stated that the facility as proposed will have no potential effects.

VIII. PUBLIC NOTICE:

Upon publication of the public notice, a public comment period shall begin on the date of publication and last for at least 30 days thereafter. During this period, any interested persons may submit written comments on the draft permit modification and may request a public hearing to clarify issues involved in the permit decision at this Office's address on the first page of the statement of basis. A request for a public hearing shall be in writing and shall state the nature of the issues proposed to be raised in the hearing.

Public notice published in:

Local newspaper of general circulation
Office of Environmental Services Public Notice Mailing List

For additional information, contact:

Mrs. Angela Marse
Permits Division
Department of Environmental Quality
Office of Environmental Services
P. O. Box 4313
Baton Rouge, Louisiana 70821-4313

IX. PROPOSED PERMIT LIMITS:**Interim Effluent Limits:****OUTFALL 001**

The discharge is for a new development planned in stages. Interim effluent limits will be effective from the effective date of the permit through three years from the effective date of the permit. These limits cover Phase I of the development. Loading limits are based on a design capacity of 0.1 MGD.

The facility is a new discharger into an impaired stream not meeting all of its designated uses. New or expanding discharges in excess of 100,000 gallons per day should have appropriate effluent limitations that prevent impact on the impaired stream. According to LDEQ's Pre-TMDL Permitting Strategy (December, 2003), this Office will issue permits that 1.) maintain water quality of impaired streams and 2.) include a reopener clause in the permit to allow for more stringent limits if necessary. Maintaining water quality at existing levels means there will not be any additional significant contribution of pollutants to the waterbody. Thus, new or expanding discharges must have appropriate effluent limitations that prevent any additional impact on the impaired stream. As stated in the letter from Ferguson (EPA) to Region 6 Program Manager dated 1/6/03, a discharger meeting effluent limits of 5mg/l CBOD₅, 2mg/l ammonia-nitrogen, and 5 mg/l dissolved oxygen would not cause or contribute to existing impairments. Following finalization of the TMDL, the treatment level required by the TMDL could then be implemented. Therefore, a reopener statement has been included in the permit. The Department of Environmental Quality reserves the right to impose more stringent discharge limitations and/or additional restrictions as

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a result of the TMDL. With the exception of TSS, these effluent limits are proposed in the permit due to the impairments of subsegment 040701 discussed in Section V. Receiving Waters. TSS is not a source of impairment for the receiving stream and the method of treatment utilized by the Tangipahoa Sewerage District No. 1 generates non-impacting TSS such as fish larvae, plant seeds, and pollen.

A reopening statement has been included in the permit. The Department of Environmental Quality reserves the right to impose more stringent discharge limitations and/or additional restrictions as a result of the TMDL.

Effluent Characteristic	Monthly Avg. (lbs./day)	Monthly Avg.	Weekly Avg.	Basis
CBOD ₅	4	5 mg/l	10 mg/l	LDEQ's Pre-TMDL Permitting Strategy (December, 2003), Letter from Ferguson (EPA) to Region 6 Program Managers dated 1/06/03, and water quality impairments of the receiving stream.
TSS	12.5	15 mg/l	23 mg/l	Since there is no numeric water quality criterion for TSS, and in accordance with the current Water Quality Management Plan, the TSS effluent limitations shall be based on a case-by-case evaluation of the treatment technology being utilized at a facility. Therefore, a Technology Based Limit has been established through Best Professional Judgement for the type of treatment technology utilized at this facility.
Ammonia-Nitrogen	2	2 mg/l	4 mg/l	LDEQ's Pre-TMDL Permitting Strategy (December, 2003), Letter from Ferguson (EPA) to Region 6 Program Managers dated 1/06/03, and water quality impairments of the receiving stream.
Dissolved Oxygen	N/A	5 mg/l	N/A	LDEQ's Pre-TMDL Permitting Strategy (December, 2003), Letter from Ferguson (EPA) to Region 6 Program Managers dated 1/06/03, and water quality impairments of the receiving stream.

*Concentration limits are used in accordance with LAC 33:IX.2709.F.1.b which states that mass limitations are not necessary when applicable standards and limitations are expressed in other units of measurement. LAC 33:IX.709.B references LAC 33:IX.711 which express BOD₅ and TSS in terms of concentration.

**This Dissolved Oxygen limit is the lowest allowable average of daily discharges over a calendar month. When monitoring is conducted, the Dissolved Oxygen shall be analyzed immediately, as per 40 CFR 136.3.

Other Effluent Limitations:

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Other Effluent Limitations:**1) Fecal Coliform**

The discharge from this facility is into a water body which has a designated use of Primary Contact Recreation. According to LAC 33:IX.1113.C.5.b.i, the fecal coliform standards for this water body are 200/100 ml and 400/100 ml. Therefore, the limits of 200/100 ml (Monthly Average) and 400/100 ml (Weekly Average) are proposed as Fecal Coliform limits in the permit. These limits are being proposed through Best Professional Judgment in order to ensure that the water body standards are not exceeded, and due to the fact that existing facilities have demonstrated an ability to comply with these limitations using present available technology.

2) pH

According to LAC 33:IX.3705.A.1., POTW's must treat to at least secondary levels. Therefore, in accordance with LAC 33:IX.5905.C., the pH shall not be less than 6.0 standard units nor greater than 9.0 standard units at any time.

3) Solids and Foam

There shall be no discharge of floating solids or visible foam in other than trace amounts in accordance with LAC 33:IX.1113.B.7.

Final Effluent Limits:**OUTFALL 001**

The discharge is for a new development planned in stages. Final effluent limits will be effective three years from the effective date of the permit and expire on the expiration date of the permit. These limits cover Phase II-IV of the development. Loading limits are based on a design capacity of 0.4 MGD.

A reopener statement has been included in the permit. The Department of Environmental Quality reserves the right to impose more stringent discharge limitations and/or additional restrictions as a result of the TMDL.

Effluent Characteristic	Monthly Avg. (lbs./day)	Monthly Avg.	Weekly Avg.	Basis
CBOD ₅	17	5 mg/l	10 mg/l	LDEQ's Pre-TMDL Permitting Strategy (December, 2003), Letter from Ferguson (EPA) to Region 6 Program Managers dated 1/06/03, and water quality impairments of the receiving stream.
TSS	50	15 mg/l	23 mg/l	Since there is no numeric water quality criterion for TSS, and in accordance with the current Water Quality Management Plan, the TSS effluent limitations shall be based on a case-by-case evaluation of the treatment technology being utilized

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Effluent Characteristic	Monthly Avg. (lbs./day)	Monthly Avg.	Weekly Avg.	Basis
				at a facility. Therefore, a Technology Based Limit has been established through Best Professional Judgement for the type of treatment technology utilized at this facility.
Ammonia-Nitrogen	7	2 mg/l	4 mg/l	LDEQ's Pre-TMDL Permitting Strategy (December, 2003), Letter from Ferguson (EPA) to Region 6 Program Managers dated 1/06/03, and water quality impairments of the receiving stream.
Dissolved Oxygen	N/A	5 mg/l	N/A	LDEQ's Pre-TMDL Permitting Strategy (December, 2003), Letter from Ferguson (EPA) to Region 6 Program Managers dated 1/06/03, and water quality impairments of the receiving stream.

*Concentration limits are used in accordance with LAC 33:IX.2709.F.1.b which states that mass limitations are not necessary when applicable standards and limitations are expressed in other units of measurement. LAC 33:IX.709.B references LAC 33:IX.711 which express BOD₅ and TSS in terms of concentration.

**This Dissolved Oxygen limit is the lowest allowable average of daily discharges over a calendar month. When monitoring is conducted, the Dissolved Oxygen shall be analyzed immediately, as per 40 CFR 136.3.

Other Effluent Limitations:**1) Fecal Coliform**

The discharge from this facility is into a water body which has a designated use of Primary Contact Recreation. According to LAC 33:IX.1113.C.5.b.i, the fecal coliform standards for this water body are 200/100 ml and 400/100 ml. Therefore, the limits of 200/100 ml (Monthly Average) and 400/100 ml (Weekly Average) are proposed as Fecal Coliform limits in the permit. These limits are being proposed through Best Professional Judgment in order to ensure that the water body standards are not exceeded, and due to the fact that existing facilities have demonstrated an ability to comply with these limitations using present available technology.

2) pH

According to LAC 33:IX.3705.A.1., POTW's must treat to at least secondary levels. Therefore, in accordance with LAC 33:IX.5905.C., the pH shall not be less than 6.0 standard units nor greater than 9.0 standard units at any time.

3) Solids and Foam

There shall be no discharge of floating solids or visible foam in other than trace amounts in accordance with LAC 33:IX.1113.B.7.

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X. PREVIOUS PERMITS:

LPDES Permit No. LA0123331: This is a new facility. No previous permits have been issued.

XI. ENFORCEMENT AND SURVEILLANCE ACTIONS:**A) Inspections**

This is a new facility. No inspections have been conducted.

B) Compliance and/or Administrative Orders

This is a new facility. No enforcement actions have been administered against the facility.

C) DMR Review

This is a new facility, no DMRs have been submitted.

XII. ADDITIONAL INFORMATION:**PERMIT REOPENER CLAUSE**

In accordance with LAC 33:IX.2361.C.3, this permit may be modified, or alternatively, revoked and reissued, to comply with any applicable effluent standard or limitations issued or approved under sections 301(b)(2)(c) and (D); 304(b)(2); and 307(a)(2) of the Clean Water Act, if the effluent standard or limitations so issued or approved:

- a) Contains different conditions or is otherwise more stringent than any effluent limitation in the permit; or
- b) Controls any pollutant not limited in the permit; or
- c) Requires reassessment due to change in 303(d) status of waterbody; or
- d) Incorporates the results of any total maximum daily load allocation, which may be approved for the receiving water body. The LDEQ and USEPA will be conducting TMDLs in the Lake Pontchartrain Basin Segment 040701. The Department of Environmental Quality reserves the right to impose more stringent discharge limitations and/or additional restrictions as a result of the TMDL. Therefore, prior to upgrading or expanding this facility, the permittee should contact the Department to determine the status of the work being done to establish future effluent limitations and additional permit conditions.

Final effluent loadings (i.e. lbs/day) have been established based upon the permit limit concentrations and the design capacity of 0.4 MGD.

Effluent loadings are calculated using the following example:

$$\text{BOD: } 8.34 \text{ lb/gal} \times 0.1 \text{ MGD} \times 5 \text{ mg/l} = 4 \text{ lb/day}$$

At present, the **Monitoring Requirements, Sample Types, and Frequency of Sampling** as shown in the permit are standard for facilities of flows between 0.1 and 0.5MGD.

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Pretreatment Requirements

Based upon consultation with LDEQ pretreatment personnel, pretreatment language has been included in the permit.

XIII TENTATIVE DETERMINATION:

On the basis of preliminary staff review, the Department of Environmental Quality has made a tentative determination to issue a permit for the discharge described in this Statement of Basis.

XIV REFERENCES:

Louisiana Water Quality Management Plan / Continuing Planning Process, Vol. 8, "Wasteload Allocations / Total Maximum Daily Loads and Effluent Limitations Policy," Louisiana Department of Environmental Quality, 2005.

Louisiana Water Quality Management Plan / Continuing Planning Process, Vol. 5, "Water Quality Inventory Section 305(b) Report," Louisiana Department of Environmental Quality, 1998.

Louisiana Administrative Code, Title 33 - Environmental Quality, Part IX - Water Quality Regulations, Chapter 11 - "Louisiana Surface Water Quality Standards," Louisiana Department of Environmental Quality, 2004.

Louisiana Administrative Code, Title 33 - Environmental Quality, Part IX - Water Quality Regulations, Subpart 2 - "The LPDES Program," Louisiana Department of Environmental Quality, 2004.

Low-Flow Characteristics of Louisiana Streams, Water Resources Technical Report No. 22, United States Department of the Interior, Geological Survey, 1980.

Index to Surface Water Data in Louisiana, Water Resources Basic Records Report No. 17, United States Department of the Interior, Geological Survey, 1989.

LPDES Permit Application to Discharge Wastewater, Tangipahoa Sewerage District No.1, Coves of Highland Subdivision, October 5, 2007.